January 25, 2002

Mr. Jack Ewart
Agricor, Inc.
P.O. Box 807
Marion, Indiana 46952

Re: **053-15028-00052**
First Minor Revision to
**FESOP 053-7235-00052**

Dear Mr. Ewart:

Agricor, Inc. was issued a permit on July 8, 1998 for a dry corn milling operation. A letter requesting changes to this permit was received on November 7, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the installation of a new truck receiving system.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
SDF
cc: File - Grant County
U.S. EPA, Region V
Grant County Health Department
Air Compliance Section Inspector - Ryan Hillman
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

# FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

## Agricor, Inc.
## 1626 South Joaquin Drive
## Marion, Indiana 46952

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| | |
|---|---|
| Operation Permit No.: F053-7235-00052 | Date Issued: July 8, 1998 |

| | |
|---|---|
| First Administrative Amendment No.: F053-12013-00052 | Date Issued: April 6, 2000 |

| | |
|---|---|
| 1st Significant Permit Revision No.: 053-12323-00052 | Date Issued: February 14, 2001 |

| | |
|---|---|
| 1st Minor Permit Revision No.: 053-15028-00052 | Pages Affected: 4, 5, 26, 27, 28, 28a, 28b, and 28c |
| Issued by: Original Signed by Paul Dubenetzky<br><br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: January 24, 2002 |

# SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and presented in the permit application.

## A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a dry corn milling operation with a maximum grain process rate of 12.88 tons per hour or 460 bushels per hour.

| | |
|---|---|
| Responsible Official: | Jack Ewart |
| Source Address: | 1626 South Joaquin Drive, Marion Indiana |
| Mailing Address: | P. O. Box 807, Marion, Indiana IN 46952 |
| SIC Code: | 2041 |
| County Location: | Grant |
| County Status: | Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit (FESOP)<br>Minor Source, under PSD Rules; |

## A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(1) One (1) receiving pit with a maximum capacity of 156,800 lbs/hr.
(2) Five (5) bins to store corn each with a capacity of 560,000 lbs.
(3) Precleaning/handling equipment with a maximum throughput rate of 25,760 lbs/hr.
(4) Cleaning equipment with a maximum throughput rate of 25,760 lbs/hr, controlled by filter A/B.
(5) Milling equipment with a maximum throughput rate of 25,760 lbs/hr, controlled by filters C asp, A/B asp, A plf, B plf, C plf, and A/B feed.
(6) One (1) meal drying operation consisting of three (3) rotary dryers identified as meal, grits and cones dryers with a combined rate of 25,760 lbs/hr and particulate emissions from each of the dryers controlled by multiple cyclones identified as D-1, D-2 and D-3.
(7) One (1) cooling operation consisting of three (3) coolers identified as meal, grits and cones coolers with a combined rate of 25,760 lbs/hr, controlled by filters C-1, C-2, and C-3.
(8) Three (3) bins to store product each with a capacity of 120,000 lbs.
(9) Fifteen (15) bins to store product each with a capacity of 50,000 lbs.
(10) One (1) bin to store product with a capacity of 20,000 lbs.
(11) Loading/shipping equipment with a maximum rate of 25,760 lbs/hr.
(12) Line 1 Sifting equipment with a maximum product rate of 16,016 lbs/hr.
(13) Line 1 Grinding equipment with a maximum product rate of 16,016 lbs/hr.
(14) Line 1 Aspiration equipment with a maximum capacity of 3500 acfm.
(15) One (1) milling line, consisting of three (3) roller mills, eight (8) aspirators, two (2) sifters, one (1) hammermill and conveying equipment. The PM emissions from this equipment is controlled by fabric filters P-1, MVSA, HM-1, and FC-1.
(16) New steam dryers; one (1) meal rotary dryer with cyclone D-4; one (1) grits rotary dryer with cyclone D-5; one (1) cones rotary dryer with cyclone D-6. Their combined PM emission are controlled by cyclone D-7. The steam supplied for these dryers comes from the existing boilers, listed in Section A.3 Insignificant activities of the FESOP.
(17) New line coolers; one (1) meal cooler, C4, with PM emissions controlled by cyclone and bag filter C-4; one (1) grit cooler, C5, with PM emissions controlled by cyclone and bag filter C-5; and one (1) cones cooler, C6, with PM emissions controlled by cones cooler filter C-6.
(18) Grain handling and cleaning equipment, which is controlled by the Cleaninghouse Filter, CH-1.

(19) One (1) receiving pit to handle additional throughput.
(20) Product Storage, loading and shipping equipment.
(21) One (1) truck receiving system, consisting of:

(a) one (1) receiving conveyor, identified as RC-1, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1,
(b) three (3) receiving bins, identified as RSB-1, RSB-2, and RSB-3,
(c) one (1) transfer conveyor, identified as RC-2, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1, and
(d) one (1) truck receiving pit, identified as RP, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1.

## A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(1) One (1) natural gas fired boiler, identified as B1, with a rated capacity of 1.67 mmBtu/hr.
(2) One (1) natural gas fired boiler, identified as B2, with a rated capacity of 4.185mmBtu/hr.
(3) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six (6,000,000) Btu per hour.
(4) Combustion source flame safety purging on startup.
(5) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230, 000 gallons per month.
(6) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
(7) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.
(8) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6
(9) The following equipment related to manufacturing activities not resulting in the emissions of HAP's: brazing equipment, cutting torches, soldering equipment, welding equipment.
(10) Closed loop heating and cooling systems.
(11) Solvent recycling systems with batch capacity less than equal to 100 gallons.
(12) Blow down for the any of the following: sight glass; boiler; compressors; pumps; and cooling waters.
(13) Farm operations

## A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

**SECTION D.1 FACILITY OPERATION CONDITIONS**

(1) One (1) receiving pit with a maximum capacity of 156,800 lbs/hr.
(2) Five (5) bins to store corn each with a capacity of 560,000 lbs.
(3) Precleaning/handling equipment with a maximum throughput rate of 25,760 lbs/hr.
(4) Cleaning equipment with a maximum throughput rate of 25,760 lbs/hr, controlled by filter A/B.
(5) Milling equipment with a maximum throughput rate of 25,760 lbs/hr, controlled by filters C asp, A/B asp, A plf, B plf, C plf, and A/B feed.
(6) One (1) meal drying operation consisting of three (3) rotary dryers identified as meal, grits and cones dryers with a combined rate of 25,760 lbs/hr and particulate emissions from each of the dryers controlled by multiple cyclones identified as D-1, D-2 and D-3.
(7) One (1) cooling operation consisting of three (3) coolers identified as meal, grits and cones coolers with a combined rate of 25,760 lbs/hr, controlled by filters C-1, C-2, and C-3.
(8) Three (3) bins to store product each with a capacity of 120,000 lbs.
(9) Fifteen (15) bins to store product each with a capacity of 50,000 lbs.
(10) One (1) bin to store product with a capacity of 20,000 lbs.
(11) Loading/shipping equipment with a maximum rate of 25,760 lbs/hr.
(12) Line 1 Sifting equipment with a maximum product rate of 16,016 lbs/hr.
(13) Line 1 Grinding equipment with a maximum product rate of 16,016 lbs/hr.
(14) Line 1 Aspiration equipment with a maximum capacity of 3500 acfm.
(15) One (1) milling line, consisting of three (3) roller mills, eight (8) aspirators, two (2) sifters, one (1) hammermill and conveying equipment. The PM emissions from this equipment is controlled by fabric filters P-1, MVSA, HM-1, and FC-1.
(16) New steam dryers; one (1) meal rotary dryer with cyclone D-4; one (1) grits rotary dryer with cyclone D-5; one (1) cones rotary dryer with cyclone D-6. Their combined PM emission are controlled by cyclone D-7. The steam supplied for these dryers comes from the existing boilers, listed in Section A.3 Insignificant activities of the FESOP.
(17) New line coolers; one (1) meal cooler, C4, with PM emissions controlled by cyclone and bag filter C-4; one (1) grit cooler, C5, with PM emissions controlled by cyclone and bag filter C-5; and one (1) cones cooler, C6, with PM emissions controlled by cones cooler filter C-6.
(18) Grain handling and cleaning equipment, which is controlled by the Cleaninghouse Filter, CH-1.
(19) One (1) receiving pit to handle additional throughput.
(20) Product Storage, loading and shipping equipment.
(21) One (1) truck receiving system, consisting of:

(a) one (1) receiving conveyor, identified as RC-1, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1,
(b) three (3) receiving bins, identified as RSB-1, RSB-2, and RSB-3,
(c) one (1) transfer conveyor, identified as RC-2, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1, and
(d) one (1) truck receiving pit, identified as RP, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1.

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.1.1 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

The sourcewide PM10 emission rate shall be limited as follows:

| Facility | Air Flow Rate Limit (cfm) | Grain Loading (gr/dscf) | PM Limit (lbs/hour) | PM10 Limit (lbs/hour) |
|---|---|---|---|---|
| Receiving from (2) Existing Lines and New Line | Fugitive | | | 1.2 |
| Grain Handling & Cleaning (Cleaninghouse Filter CH-1) | 20340 | 0.02 | 8.6 | 3.5 |
| Milling:<br>Pneumatic Lift Filter, P-1<br>Hammermill Filter, HM-1<br>Aspirator Filter, MVSA<br>Feed Collection Filter, FC-1 | <br>6200<br>900<br>11000<br>3800 | <br>0.02<br>0.02<br>0.02<br>0.02 | <br>3.6<br>0.52<br>6.3<br>2.2 | <br>1.06<br>0.15<br>1.88<br>0.65 |
| Meal Dryer Cyclone, D-4<br>Grit Dryer Cyclone, D-5<br>Cones Dryer Cyclone, D-6 (ALL CONTROLLED BY CYCLONE D-7) | 1440<br>1440<br>1400<br>5520 | 0.041<br>0.041<br>0.041 | 0.82<br>0.82<br>0.82 | 1.9 |
| Meal Cooler Filter, C4 | 3270 | 0.02 | 1.5 | 0.5 |
| Grit Cooler Filter, C5 | 3270 | 0.02 | 1.5 | 0.5 |
| Cones Cooler, C6 | 2450 | 0.02 | 1.4 | 0.72 |
| Loading/Shipping For Both Lines | | | 0.80 | 0.25 |
| Grain Handling & Cleaning (Cleaninghouse Filter A/B ch) | 9000 | 0.02 | 5.2 | 1.5 |
| Milling:<br>Pneumatic Lift Filter, A<br>Pneumatic Lift Filter, B<br>Pneumatic Lift Filter, C<br>Aspirator Filter, A/B asp<br>General Aspiration, C asp<br>Feed Filter, A/B feed | <br>2940<br>1500<br>1900<br>7000<br>5500<br>2600 | <br>0.02<br>0.02<br>0.02<br>0.02<br>0.02<br>0.02 | <br>1.7<br>0.86<br>1.09<br>4.0<br>3.15<br>1.5 | <br>0.50<br>0.25<br>0.32<br>1.2<br>0.90<br>0.40 |
| Meal Dryer Cyclone, D1<br>Grit Cyclone, D2<br>Cones Cyclone, D3<br>(ALL CONTROLLED BY CYCLONE D-8) | 4034 | 0.103 | 2.28 | 3.6 |
| Meal Cooler Filter, C1 | 4000 | 0.02 | 2.28 | 0.68 |
| Grit Cooler Filter, C2 | 3500 | 0.02 | 2.0 | 0.6 |
| Cones Cooler Filter, C3 | 1500 | 0.02 | 0.86 | 0.27 |
| Truck Receiving System (Baghouse RS-1) | 16000 | 0.02 | 1.05 | 0.04 |

Compliance with the PM and PM10 emission limits will make 326 IAC 2-2 Prevention of Significant Deterioration (PSD) and 40 CFR 52.21 not applicable. Compliance with the PM10 emission limits will make 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the above listed equipment of the dry corn milling operation shall be limited as follows:

| Process/Facility | PM Emission Limit (lbs/hr) |
|---|---|
| Receiving (New & Existing Lines) | 36.0 |
| Grain Cleaning & Handling | 22.7 |
| Milling Line - aspirators, roller mills, hammermill and receivers | 22.7 |
| Sifter | 16.5 |
| Meal Drying - three dryers | 10.88 each |
| Meal Cooling- three coolers | 10.88 each |
| Grain Cleaning & Handling | 22.7 |
| Milling- aspirators, roller mills, hammermills and receivers | 22.7 |
| Meal Drying - three dryers | 10.88 each |
| Meal Cooling- three coolers | 10.88 each |
| Existing Sifter | 16.5 |
| Existing Grinding operation | 16.5 |
| Loading/Shipping (New & Existing Lines) | 36.0 |
| Truck Receiving System (Baghouse RS-1) | 36.15 |

The above pounds per hour limitations shall be calculated using the following equation:

$E = 4.10\ P^{0.67}$ where: E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.1.3 Truck Unloading Opacity [40 CFR 60, Subpart DD, 60.302(c)(1)]

The owner of operator shall, on and after the 60th day of achieving maximum production rate, but no later than 180 days after initial startup, limit the fugitive emissions from the truck receiving system to less than 5% opacity.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the above equipment and their control devices.

**Compliance Determination Requirements**

D.1.5 Baghouses/Dust Collectors, Cyclones and Filters

Baghouses/dust collectors and filters P-1, MVSA, HM-1, FC-1, CH-1, C-1 through C-6, C asp, A/B asp, A plf, B plf, C plf, A/B feed, D-1 through D-6, and RS-1, shall operate at all times the process being controlled is in operation.

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

An initial compliance stack tests shall be performed for representative baghouses/dust collectors MVSA, CH-1, C-4, and D-4 to determine compliance with the PSD limit in Condition D.1.1 and to establish each pressure drop range that correspond to the PM and PM10 limit in D.1.1 and D.1.2, utilizing methods as approved by the Commissioner. These tests shall be conducted within 60 days after the new equipment has achieved the maximum production rate, but no later than 180 days after the (new equipment) initial start-up.

D.1.7 Truck Unloading Opacity [40 CFR 60, Subpart DD, 60.303(a) and (b)(3)]

To determine compliance with the opacity limit of Condition D.1.3, the owner or operator shall conduct an initial performance test as required in 60.8, utilizing Method 9 and the procedures specified in 60.11.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.1.8 Visible Emissions Notations

(a) Visible emission notations of P-1, MVSA, HM-1, FC-1, CH-1, C-1 through C-6, C asp, A/B asp, A plf, B plf, C plf, A/B feed, D-1 through D-6, and RS-1 exhausts, including building openings/vents shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.9 Parametric Monitoring for Baghouses/dust collectors and cyclones

The Permittee shall record the total static pressure drop across the baghouses/dust collectors and cyclones identified as P-1, MVSA, HM-1, FC-1, C asp, A/B asp, A plf, B plf, C plf, A/B feed, CH-1, C-1 through C-6, D-1 through D-6, and RS-1, used in conjunction with the milling operation, at least once weekly when the milling equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the following baghouses P-1, MVSA, HM-1, FC-1, C asp, A/B asp, A plf, B plf, C plf, A/B feed, CH-1, C-1 through C-6, and RS-1, shall be maintained within the range of 0.5 and 4.0 inches of water or a range established during the latest stack test. The pressure drop for cyclones D-1 through D-6 shall be maintained within the range of 2.0 and 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

An inspection shall be performed each calender quarter of all bags controlling the milling operation. All defective bags shall be replaced.

D.1.10 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until failed units have been repaired or replaced.

(b) Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.

D.1.11 Meal Coolers and Dryers Cyclones D-1, D-2, D-3

(a) Visual inspection to verify that the fans are running shall be performed two (2) times every shift.

(b) Inspection for leaks in ductwork and multicyclone shall be done on weekly basis.

D.1.12 Receiving Pit

Visual inspection by corn grader to verify that bin is used when receiving corn from dump trucks, whenever corn is received from dump trucks.

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.1.13 Record Keeping Requirements

(a) To document compliance with Condition D.1.6 the Permittee shall maintain records of visible emission notations per shift of all the dust collector exhausts, cyclone exhausts and building openings/vents.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure

(2) Documentation of all response steps implemented, per event .

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(c) Records shall also be kept to demonstrate compliance with conditions D.1.8, D.1.9 and D.1.10.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit (FESOP)
**(Nonconfidential Version)**

### Source Background and Description

| | |
|---|---|
| Source Name: | Agricor, Inc. |
| Source Location: | 1626 South Joaquin Drive, Marion, Indiana 46952 |
| County: | Grant |
| SIC Code: | 2041 |
| Operation Permit No.: | F-053-7235-00052 |
| Operation Permit Issuance Date: | July 8, 1998 |
| First Minor Permit Revision No.: | 053-15028-00052 |
| Permit Reviewer: | SDF |

The Office of Air Quality (OAQ) has reviewed a minor permit revision application from Agricor, Inc. relating to the operation of their existing dry corn milling operation.

### Request

On November 7, 2001, Agricor, Inc. submitted an application to add a new corn truck receiving system at their existing milling operation, consisting of:

(a) one (1) receiving conveyor, identified as RC-1, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1,
(b) three (3) receiving bins, identified as RSB-1, RSB-2, and RSB-3,
(c) one (1) transfer conveyor, identified as RC-2, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1, and
(d) one (1) truck receiving pit, identified as RP, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1.

The proposed units will generate particulate matter (PM) and PM10 emissions. Based on the maximum source production rate, AP-42 emission factors, emissions before controls, no increase in production due to the proposed equipment, and 8760 hours of operation, the PM(PM10) emissions due to the proposed receiving system is estimated to be 19.18 tons per year.

This proposed modification shall therefore be permitted via a minor permit revision pursuant to 326 IAC 2-8-11.1(d)(4)(A) which states that modifications with PM(PM10) potential to emit greater than 5 tons per year but less than 25 tons per year, may be permitted via a minor permit revision.

### Existing Approvals

The source was issued F 053-7235-00052 on July 8, 1998. The source has been operating under this permit, First Administrative Amendment (053-12013-00052), issued on April 6, 2000, First Significant Permit Revision (053-12323-00052), issued on February 14, 2001, and Second Permit Revision, issued on July 3, 2001.

### Enforcement Issue

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

**Emission Calculations**

**UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:**

19.18 tons PM(PM10)/yr

**EMISSIONS AFTER CONTROLS:**

0.19 tons PM(PM10)/yr

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|---|---|
| PM | 19.18 |
| PM-10 | 19.18 |
| $SO_2$ | - |
| VOC | - |
| CO | - |
| $NO_x$ | - |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

**Revision Justification**

This proposed modification is permitted via a minor permit revisions pursuant to 326 IAC 2-8-11.1(d)(4)(A) because the PM(PM10) potential to emit is greater than 5 tons per year but less than 25 tons per year.

**County Attainment Status**

The source is located in Grant County.

| Pollutant | Status |
|---|---|
| $PM_{10}$ | attainment or unclassifiable |
| $SO_2$ | attainment or unclassifiable |
| $NO_2$ | attainment or unclassifiable |
| Ozone | attainment or unclassifiable |
| CO | attainment or unclassifiable |
| Lead | attainment or unclassifiable |

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) Grant County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Unit | PM (tons/yr) | PM10 (tons/yr) | SO2 (tons/yr) | NOx (tons/yr) | VOC (tons/yr) | CO (tons/yr) | Comb. HAPs (tons/yr) |
|---|---|---|---|---|---|---|---|
| Source | 46.7 | 14.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSD Major Source Levels | 250 | 250 | 250 | 250 | 250 | 250 | - |
| Part 70 Major Source Levels | - | 100 | 100 | 100 | 100 | 100 | 10/25 |

(a) The existing source emissions listed in the above table are obtained from First Permit Revision 053-12323-00052, issued on February 14, 2001.

(b) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(c) This existing source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

**Source Status After the Proposed Modification**

| Unit | PM (tons/yr) | PM10 (tons/yr) | SO2 (tons/yr) | NOx (tons/yr) | VOC (tons/yr) | CO (tons/yr) | Comb. HAPs (tons/yr) |
|---|---|---|---|---|---|---|---|
| Source | 46.70 | 14.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Modification | 0.19 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total After Modification** | **46.89** | **14.24** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

(a) The source after the modification is still not a major PSD stationary source because no attainment regulated pollutant, after the proposed modification, is emitted at a rate of 250 tons per year or more.

(b) This existing source is still not a Title V major stationary source because after the modification, no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

**Federal Rule Applicability**

**New Source Performance Standards (NSPS):**

Since the proposed modification is a truck unloading station and is not one of the exemptions under 60.304(b), the proposed truck unloading system is determined to be subject to 40 CFR 60, Subpart DD, “Standards of Performance for Grain Elevators”.

Pursuant to 40 CFR 60, Subpart DD, 60.302(c)(1), on and after the 60$^{th}$ day of achieving maximum production rate, but no later than 180 days after initial startup, the owner or operator shall not allow from the truck receiving system, discharge of any fugitive emissions which exhibit 5% opacity.

Pursuant to 40 CFR 60.303(a) and 60.303(b)(3), to determine compliance, the owner or operator shall conduct performance tests as required in 60.8 utilizing Method 9 and the procedures specified in 60.11.

**National Emission Standards for Hazardous Air Pollutants (NESHAPs):**

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Part 61 and 63) that become applicable as a result of the proposed modification.

**State Rule Applicability**

**Entire State Rule Applicability:**

326 IAC 1-6-3 (Preventive Maintenance Plan):

The proposed source is still required to have a preventive maintenance plan for the emission units and control devices of the source.

326 IAC 2-4.1 (HAP Major Sources)

This source is still not subject to the requirements of 326 IAC 2-4.1 because no single hazardous air pollutant (HAP) emissions exceed 10 tons per year, and the combined HAP emissions are less than 25 tons per year.

326 IAC 5-1-2 (Opacity Limitations)

Opacity shall still not exceed an average of 40% in any one 6 minute averaging period. Opacity shall not exceed 60% for more than a cumulative total of fifteen minutes.

**Individual State Rule Applicability**

326 IAC 6-3 (Process Operations), Receiving System:

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the proposed receiving system is estimated to be 36.15 lb PM/hr.

The hourly PM emissions before controls from the proposed receiving system is estimated to be 4.38 lb/hr which is less than the limit of 36.15 lb PM/hr. Thus, compliance is determined to be achieved.

**Changes to the Permit**

Condition A.2 shall be revised as follows to include the new proposed equipment with the references to existing and new equipment removed to define the “source” emission units.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

~~Existing Equipment:~~

(1) **One (1)** ~~R~~**receiving** pit with a maximum capacity of 156,800 lbs/hr.
(2) Five (5) bins to store corn each with a capacity of 560,000 lbs.
(3) Precleaning/handling equipment with a max**imum**~~.~~ throughput rate of 25,760 lbs/hr.
(4) Cleaning equipment with a max**imum**~~.~~ throughput rate of 25,760 lbs/hr, controlled by filter A/B.
(5) Milling equipment with a max**imum**~~.~~ throughput rate of 25,760 lbs/hr, controlled by filters C asp, A/B asp, A plf, B plf, C plf, and A/B feed.
(6) **One (1)** ~~M~~**m**eal drying operation **consisting of**~~:~~

   ~~(a)~~ ~~T~~**t**hree (3) rotary dryers identified as meal, grits and cones dryers with a combined rate of 25,760 lbs/hr and particulate emissions from each of the dryers controlled by multiple cyclones identified as D-1, D-2 and D-3.

(7) **One (1)** ~~C~~**c**ooling operation **consisting of**:

   ~~(a)~~ ~~T~~**t**hree (3) coolers identified as meal, grits and cones coolers with a combined rate of 25,760 lbs/hr, controlled by filters C-1, C-2, and C-3.

(8) Three (3) bins to store product each with a capacity of 120,000 lbs.

(9) Fifteen (15) bins to store product each with a capacity of 50,000 lbs.

(10) One (1) bin to store product with a capacity of 20,000 lbs.

(11) Loading/shipping equipment with a maximum rate of 25,760 lbs/hr.
(12) Line 1 Sifting equipment with a maximum product rate of 16,016 lbs/hr.
(13) Line 1 Grinding equipment with a maximum product rate of 16,016 lbs/hr.
(14) Line 1 Aspiration equipment with a maximum capacity of 3500 acfm.

~~New Equipment:~~

(1**5**) **One (1)** ~~M~~**m**illing line, ~~which~~ consist~~s~~**sing** of three (3) roller mills, eight (8) aspirators, two (2) sifters, one (1) hammermill and conveying equipment. The PM emissions from this equipment is controlled by fabric filters P-1, MVSA, HM-1, and FC-1.

(~~2~~**16**) New steam dryers; one (1) meal rotary dryer with cyclone D-4; one (1) grits rotary dryer with cyclone D-5; one (1) cones rotary dryer with cyclone D-6. Their combined PM emission are controlled by cyclone D-7. The steam supplied for these dryers comes from the existing boilers, listed in Section A.3 Insignificant activities of the FESOP.

(~~3~~**17**) New line coolers; one (1) meal cooler, C4, with PM emissions controlled by cyclone and bag filter C-4; one (1) grit cooler, C5, with PM emissions controlled by cyclone and bag filter C-5; and one (1) cones cooler, C6, with PM emissions controlled by cones cooler filter C-6.

(~~4~~**18**) Grain handling and cleaning equipment, which is controlled by the Cleaninghouse Filter, CH-1.

~~The expansion will also involve utilizing the existing equipment:~~

(~~5~~**19**) **One (1)** ~~R~~**r**eceiving pit~~,~~ to handle additional throughput.

(~~6~~**20**) Product Storage, loading and shipping equipment.

**(21) One (1) truck receiving system, consisting of:**

**(a) one (1) receiving conveyor, identified as RC-1, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1,**
**(b) three (3) receiving bins, identified as RSB-1, RSB-2, and RSB-3,**
**(c) one (1) transfer conveyor, identified as RC-2, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1, and**
**(d) one (1) truck receiving pit, identified as RP, with particulate emissions controlled by Baghouse RS-1, and emissions exhausted through Stack RS-1.**

**Section D.1 Description:**

The unit description of Section D.1 shall be revised to include the revised unit description of Condition A.2.

**Condition D.1.1:**

Condition D.1.1 shall be amended to include the PM10 limit associated with the new proposed equipment. The PM10 emissions from the equipment are controlled by baghouse RS-1.

Condition D.1.1 limits the source PM10 emissions to less than 100 tons per year. The sum total of the hourly limits for all other units of the source is 22.53 lb/hr (98.68 tons/yr). The hourly PM10 limit established for the proposed equipment is based on the remaining allowable emissions for the source. To avoid Part 70 review, the source PM10 emissions must be 99 tons/yr or less. The available annual allowable rate, as determined below, is estimated to be 0.32 tons/yr.

99 tons PM10/yr - 98.68 tons PM10/yr = 0.32 tons PM10/yr

The hourly equivalent is determined to be 0.07 lb PM10/hr.

0.32 tons PM10/yr * 2000 lb PM10/ton PM10 * 1/8760 yr/hr = 0.07 lb PM10/hr

This limit is determined to be acceptable because the hourly emissions after controls based on the proposed baghouse overall control efficiency of 99% and the estimated UPTE of 19.18 tons/yr, yields emissions of 0.04 lb PM10/hr, which is less than the limit of 0.07 lb PM10/hr.
19.18 tons/yr * 1/8760 yr/hr * 2000 lb/ton * (1 - 0.99) = 0.04 lb/hr

In addition, Condition D.1.1 establishes the sourcewide PM limit that keep the source from being a Prevention of Significant Deterioration (PSD) source. To avoid being a PSD source, the source PM emissions must be less than or equal to 249 tons per year. Based on the hourly emission rates from the existing permitted units, the annual rate is determined to be 248.78 tons PM/yr which leave 0.22 tons per year for the new proposed equipment.

To increase the allowable rate available to the proposed equipment, the largest hourly limit (Cleaninghouse Filter CH-1, 11.6 lb/hr) shall be reduced by 1 lb/hr to 10.6 lb/hr. 1 lb/hr is equivalent to 4.38 tons/yr.

Thus, the total allowable PM emissions are 4.38 tons/yr plus 0.22 tons/yr, or 4.60 tons/yr. 4.60 tons/yr is equivalent to 1.05 lb PM/hr, which will be the PM limit established for the proposed equipment.

This limit is determined to be acceptable because, as shown below, the source will achieve compliance with both the reduced clearinghouse and the proposed equipment limits.

Clearinghouse: 20340 dscf/min * 60 min/hr * 0.02 gr/dscf * 1/7000 gr/lb = 3.49 lb PM/hr

New Equipment: 19.18 tons/yr * 1/8760 yr/hr * 2000 lb/ton * (1 - 0.99) = 0.04 lb PM/hr

| | Estimated PM (lb/hr) | Hourly PM Limit (lb/hr) |
|---|---|---|
| Clearinghouse | 3.49 | 10.6 |
| New Equipment | 0.04 | 1.05 |

Therefore, Condition D.1.1 is amended as follows:

D.1.1 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

The sourcewide PM10 emission rate shall be limited as follows:

| Facility | Air Flow Rate Limit (cfm) | Grain Loading (gr/dscf) | PM Limit (lbs/hour) | PM10 Limit (lbs/hour) |
|---|---|---|---|---|
| ~~**New Process Line:**~~ | | | | |
| Receiving from **(2)** Existing Line~~s and New Line~~ | Fugitive | | | 1.2 |
| Grain Handling & Cleaning (Cleaninghouse Filter CH-1) | 20340 | 0.02 | ~~11.6~~**10.6** | 3.5 |
| Milling:<br>Pneumatic Lift Filter, P-1<br>Hammermill Filter, HM-1<br>Aspirator Filter, MVSA<br>Feed Collection Filter, FC-1 | <br>6200<br>900<br>11000<br>3800 | <br>0.02<br>0.02<br>0.02<br>0.02 | <br>3.6<br>0.52<br>6.3<br>2.2 | <br>1.06<br>0.15<br>1.88<br>0.65 |
| Meal Dryer Cyclone, D-4<br>Grit Dryer Cyclone, D-5<br>Cones Dryer Cyclone, D-6 (ALL CONTROLLED BY CYCLONE D-7) | 1440<br>1440<br>1400<br>5520 | 0.041<br>0.041<br>0.041 | 0.82<br>0.82<br>0.82 | 1.9 |
| Meal Cooler Filter, C4 | 3270 | 0.02 | 1.5 | 0.5 |
| Grit Cooler Filter, C5 | 3270 | 0.02 | 1.5 | 0.5 |
| Cones Cooler, C6 | 2450 | 0.02 | 1.4 | 0.72 |
| Loading/Shipping For Both Lines | | | 0.80 | 0.25 |
| ~~**Existing Process Line:**~~ | | | | |
| Grain Handling & Cleaning (Cleaninghouse Filter A/B ch) | 9000 | 0.02 | 5.2 | 1.5 |
| Milling:<br>Pneumatic Lift Filter, A<br>Pneumatic Lift Filter, B<br>Pneumatic Lift Filter, C<br>Aspirator Filter, A/B asp<br>General Aspiration, C asp<br>Feed Filter, A/B feed | <br>2940<br>1500<br>1900<br>7000<br>5500<br>2600 | <br>0.02<br>0.02<br>0.02<br>0.02<br>0.02<br>0.02 | <br>1.7<br>0.86<br>1.09<br>4.0<br>3.15<br>1.5 | <br>0.50<br>0.25<br>0.32<br>1.2<br>0.90<br>0.40 |
| Meal Dryer Cyclone, D1<br>Grit Cyclone, D2<br>Cones Cyclone, D3<br>(ALL CONTROLLED BY CYCLONE D-8) | 4034 | 0.103 | 2.28 | 3.6 |
| Meal Cooler Filter, C1 | 4000 | 0.02 | 2.28 | 0.68 |
| Grit Cooler Filter, C2 | 3500 | 0.02 | 2.0 | 0.6 |
| Cones Cooler Filter, C3 | 1500 | 0.02 | 0.86 | 0.27 |
| **Truck Receiving System (Baghouse RS-1)** | **16000** | **0.02** | **1.05** | **0.04** |

**Condition D.1.2:**

Condition D.1.2 shall be revised to include the new 326 IAC 6-3-2 limit established for the new equipment and to include the new proposed equipment with the references to existing and new equipment removed to define the “source” emission units

D.1.2 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the above listed equipment of the dry corn milling operation shall be limited as follows:

| Process/Facility | PM Emission Limit (lbs/hr) |
|---|---|
| ~~New Process Line:~~ | |
| Receiving (New & Existing Lines) | 36.0 |
| Grain Cleaning & Handling | 22.7 |
| Milling Line - aspirators, roller mills, hammermill and receivers | 22.7 |
| Sifter | 16.5 |
| Meal Drying - three dryers | 10.88 each |
| Meal Cooling- three coolers | 10.88 each |
| ~~Existing Process Line:~~ | |
| Grain Cleaning & Handling | 22.7 |
| Milling- aspirators, roller mills, hammermills and receivers | 22.7 |
| Meal Drying - three dryers | 10.88 each |
| Meal Cooling- three coolers | 10.88 each |
| Existing Sifter | 16.5 |
| Existing Grinding operation | 16.5 |
| Loading/Shipping (New & Existing Lines) | 36.0 |
| **Truck Receiving System (Baghouse RS-1)** | **36.15** |

**New Condition D.1.3:**

The following condition shall be added to include the 40 CFR 60, Subpart DD requirements.

**D.1.3 Truck Unloading Opacity [40 CFR 60, Subpart DD, 60.302(c)(1)]**

**The owner of operator shall, on and after the 60th day of achieving maximum production rate, but no later than 180 days after initial startup, limit the fugitive emissions from the truck receiving system to less than 5% opacity.**

Conditions D.1.3, D.1.4, D.1.5, shall be renumbered D.1.4, D.1.5, D.1.6, respectively.

**New Condition D.1.7:**

A new condition D.1.7 shall be drafted to reflect the performance test requirements of 40 CFR 60, Subpart DD, 60.303(a) and 60.303(b)(3).

**D.1.7 Truck Unloading Opacity [40 CFR 60, Subpart DD, 60.303(a) and (b)(3)]**

**To determine compliance with the opacity limit of Condition D.1.3, the owner or operator shall conduct an initial performance test as required in 60.8, utilizing Method 9 and the procedures specified in 60.11.**

Conditions D.1.6, D.1.7, D.1.8, D.1.9, D.1.10, D.1.11, shall be renumbered D.1.8, D.1.9, D.1.10, D.1.11, D.1.12, and D.1.13, respectively.

**Condition D.1.4:**

Condition D.1.4 (now Condition D.1.5) shall be revised to include new baghouse RS-1.

D.1.4 Baghouses/Dust Collectors, Cyclones and Filters

Baghouses/dust collectors and filters P-1, MVSA, HM-1, FC-1, CH-1, C-1 through C-6, C asp, A/B asp, A plf, B plf, C plf, A/B feed, D-1 through D-6, **and RS-1,** shall operate at all times the process being controlled is in operation.

**Condition D.1.6:**

Condition D.1.6 (now Condition D.1.8) shall be revised to include new baghouse RS-1.

D.1.6 Visible Emissions Notations

(a) Visible emission notations of P-1, MVSA, HM-1, FC-1, CH-1, C-1 through C-6, C asp, A/B asp, A plf, B plf, C plf, A/B feed, D-1 through D-6, **and RS-1** exhausts, including building openings/vents shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

**Condition D.1.7:**

Condition D.1.7 (now Condition D.1.9) shall be revised to include baghouse RS-1.

D.1.7 Parametric Monitoring for Baghouses/dust collectors and cyclones

The Permittee shall record the total static pressure drop across the baghouses/dust collectors and cyclones identified as P-1, MVSA, HM-1, FC-1, C asp, A/B asp, A plf, B plf, C plf, A/B feed, CH-1, C-1 through C-6, D-1 through D-6**, and RS-1,** used in conjunction with the milling operation, at least once weekly when the milling equipment is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the following baghouses P-1, MVSA, HM-1, FC-1, C asp, A/B asp, A plf, B plf, C plf, A/B feed, CH-1, C-1 through C-6**, and RS-1,** shall be maintained within the range of 0.5 and 4.0 inches of water or a range established during the latest stack test. The pressure drop for cyclones D-1 through D-6 shall be maintained within the range of 2.0 and 4.0 inches of water or a range established during the latest stack test.

The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

**Conclusion**

The proposed receiving system shall be constructed and operated under the First Minor Permit Revision 053-15028-00052 and all other applicable conditions in FESOP 053-7235-00052.